

<110> Steven M. Ruben, et al.  
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<141> 1998-11-10

<150> PCT/US98/10868  
<151> May 28, 1998

<150> 60/044,039  
<151> May 30, 1997

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<151> August 29, 1997

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<170> PatentIn Ver. 2.0

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 <223> n equals a,t,g, or c

<400> 17  
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 ggaagatccc ggctggaacg cccagatcac cctaggcctg gtcaagttca agaaccagca 180  
 ggccatccag acagtgcggg cccggcagag cctcgggacc gggaccctcg tgctctaaac 240  
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 catggacgtg tggaggaggc gctggagctg aaggaatgga cgagccctgg gaggagggca 420  
 gaaggctacg cagggctgag gatgaagatg cagccctctg atggtcccag actctcagga 480  
 catgcccagc tcaggggctt cgagccacag gcctggcctc atatggcatg aggggggagct 540  
 ggcataggag cccctccctt gctgtgtgct tgccctctgt cctgcagact gctcttagcc 600  
 ccctggcttt gtgccaggcc tggaggaggg cagtccccc tggggtgccg agccaacgcc 660  
 tcaggaatca ggaggccagc ctggtaccaa aaggagtacc cagggcctgg taccagggcc 720  
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<210> 18  
 <211> 1379  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (639)  
 <223> n equals a,t,g, or c

<220>  
 <221> SITE  
 <222> (697)  
 <223> n equals a,t,g, or c

<220>  
 <221> SITE

<222> (1347)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (1361)

<223> n equals a,t,g, or c

<400> 18

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cacggcaaca	ggctggagtc	tgtgccgac	cctcatccac	ctcttcagga	cctactcctt	240
cctgaacctc	ctgttcctct	gctatccgtt	tgggatgtac	attccgttcc	tgcactgaa	300
ttkcgamcty	cgaaagacaa	gcctcttcaa	ccacatggcc	tccatggggc	cccgggaggc	360
ggtcagtgcc	ctggcaaaga	gccgggacta	cctcctgaca	ctgcgggaga	cgtggaagca	420
gcacasaaga	cagctgtatg	gcccgagcgc	catgcccacc	catgcctgct	gcctgtcgcc	480
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agtgtctgts	agctccatgc	tgagcgccta	ctatgtggcc	tttgtgcctg	tytggttcgt	600
gaagaacaca	cattactatg	acaagcgctg	gtcctgtgna	actcttcctg	ctggtgtcca	660
tcagcacctc	cgtgatcctc	atgcagcacc	tgctgcntgc	cagctactgt	gacctgctgc	720
acaaggccgc	cgcccatctg	ggctgttggc	agaagggtga	cccagcgctg	tgctccaacg	780
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<210> 19

<211> 1337

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (20)

<223> n equals a,t,g, or c

<400> 19

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ctacatcgca	cacctgctga	agggcgccct	cctcttctac	accatcgccc	tgattggctc	480
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atccccatgc	aggctcctgg	caacgtggcc	taaatcatca	tcgagtcccg	cgaggaaggc	600
gccacgaact	acgtgctgtg	gaaggagatt	ttgttctctg	tggacctcat	ctgctgtggt	660
gccatcctgt	tccccgtagt	ctggtccatc	cggcattctc	aggatgcgtc	tggcacagac	720
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acgggctaca	agttccagcc	cacagggaac	aaccgcgtacc	tgcagctgcc	ccaggaggac	960
gaggaggatg	ttcagatgga	gcaagtaatg	acggactctg	ggttccggga	aggcctctcc	1020
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ccatttgga	gaagagtccc	ttcctcccc	caaataattg	gcagccctgt	ccttaccctg	1260
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aaaaaaaaaa	aactcga					1337

&lt;210&gt; 20

&lt;211&gt; 1390

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1267)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 20

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gatgagtc	ctagtgaact	gagtgttgat	agtgaggtgg	aatttcaact	ctatagccaa	180
attcattatg	cccaagatct	tgatgatgtc	atcagggagg	aagagcatga	agaaaagaac	240
tctgggaatt	cgggaatctt	gagtagtaaa	ccaaatcaga	agaagcta	cgtcctttca	300
gatagtggag	tcattccagc	gtcagatggg	tcagagggtc	tcactttgtc	tgatgaagac	360
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ctttcttctt	ctcttcaatc	taatgagctg	gttgataaga	aatgcaagag	tgatattgag	480
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aactctgtta	ctgaaggaga	agatggtata	aactggtcca	tcagtgaaca	agacattgag	720
gcccagatag	ctaataaccg	aacacctgga	agatggaccc	agcggtaact	ttcagccaac	780
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tggcctcaag						1390

&lt;210&gt; 21

&lt;211&gt; 1431

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 21

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ctcagtcctc	ctggcgagcg	acgggcagaa	atctcgaacc	agtggagcgc	actcgtaacc	120
tggatcccag	aaggctcgca	aggcagtacc	gtttcctcag	cggcggactg	ctgcagtaag	180

105331-105337

aatgtctttt	ccacctcatt	tgaatcgccc	tcccatggga	atcccagcac	tcccaccagg	240
gatcccaccc	ccgcagtttc	caggatttcc	tccacctgta	cctccaggga	ccccaatgat	300
tcctgtacca	atgagcatta	tggctcctgc	tccaactgtc	ttagtaccga	ctgtgtctat	360
gggttgaaag	cattttgggcy	caagaaagga	tcattccaggc	ttaaaggcta	aagaaaaatga	420
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catgcttata	agacaactct	tagctaaatg	tggtttgggt	ttgagctgga	agagagtaca	540
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&lt;210&gt; 22

&lt;211&gt; 2539

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (1283)

&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 22

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ctaggacttg	ggcattttta	cagggagaaa	gtagtggctt	cccttttctc	tctctcctcc	300
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taatccaatc	aaaaaaaaa					2539

&lt;210&gt; 23

&lt;211&gt; 1041

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 23

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gacttctgcc	tgggctgcgc	tgacgacact	cctgccccct	tccggctgct	ttggcccatc	300
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gcccagctgt	ggcgtgatc	cagtgcacat	gtgccccctg	ccagccgggg	ctcgcccact	480
catcattcat	tcattccatt	tagagccagt	ctctgcctcc	cagacgcggc	gggagcaagc	540
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tcagggggaac	ttccaagggt	tctgggttgc	ctgcctctgg	ctccagaaca	gaaagggagc	660
ctcacgctgg	ctcacacaaa	acagctgaca	ctgactaagg	aactgcagca	tttgcacagg	720
ggaggggggt	gcccctcctc	ctagaggccc	tggggggccag	gctgacttgg	ggggcagact	780
tgacactagg	ccccactcac	tcagatgtcc	tgaaattcca	ccacgggggt	caccctgggg	840
ggttagggac	ctatttttta	cactaggggg	ctggcccact	aggagggctg	gcccctaagat	900
acagaccccc	ccaactcccc	aaagcgggga	ggagatatatt	atlttggggga	gagtttggag	960
gggagggaga	atlttattaat	aaaagaatct	ttaactttta	aaaaaaaaaa	aaaaaagggc	1020
ggccgctcta	gaggatccct	c				1041

&lt;210&gt; 24

&lt;211&gt; 1962

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (452)

&lt;223&gt; n equals a,t,g, or c

&lt;220&gt;



<221> SITE  
 <222> (480)  
 <223> n equals a,t,g, or c

<400> 24

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cactcaggat	ataacacact	ataatagaaa	atgtagactt	cagaatcagg	tatatttgag	180
atgggttgta	tactgggtct	gacacttggt	agctattcat	ctttggtaaa	ttccccatta	240
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aatgaaactt	ggatattgtt	atgggtgcttt	tnataatata	tttattattt	tcagcaattt	480
attcttgtta	aaacaatttc	ttatgacaag	ttactcatct	tcaatgggtga	gaagaaatct	540
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gacaattaga	tggacattta	aaatggaact	tcttttatct	gacaggatca	gctacaatgc	1860
cctgtgttaa	attgttttaa	agttttccctt	ttcttttttg	ccaataaagt	tgtaataaaa	1920
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<210> 25  
 <211> 1228  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (580)  
 <223> n equals a,t,g, or c

<220>  
 <221> SITE  
 <222> (621)  
 <223> n equals a,t,g, or c

<220>  
 <221> SITE  
 <222> (1159)

<223> n equals a,t,g, or c

<400> 25

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cccctcgcgc	cccgccccgt	cccctcgagg	cccctgcaac	ccacgctcgg	tyccgtttccg	1140
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<210> 26

<211> 1340

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (847)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (1303)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (1307)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (1314)

<223> n equals a,t,g, or c

<400> 26

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atgagactaa	catgtatgaa	ggtgtaggaa	gaatgtttat	tcttcagtcc	aaggaagcaa	240
ttcacagtca	gctgttagag	aagcagaaaa	tagcagaaga	aaaaattaaa	gaactagaac	300
agaaaaagtc	ctacctggag	cgacgttaaa	ggaagctgag	gacaacatcc	gggagatgct	360

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gctttatttg	gatggcctgg	caacatcaca	ttttctgcat	caccttgagc	cccatttgct	540
tcccagccct	ggagttttta	cccggctttg	ctgccacctc	tgcccaggac	ackcttccct	600
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cagttgtcaa	acacagccat	tataattatg	taaatttgca	aattatgtta	aaaacaagga	1260
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<210> 27  
 <211> 806  
 <212> DNA  
 <213> Homo sapiens

<400> 27						
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gcctctcccc	ttcaactcag	ctggccccc	gcacctgaag	tgacacaggag	ccgggaagag	300
agtctggagc	ccaccccggg	gggcagcaca	ggaggtgtct	ctgcagctgg	tgctctgcca	360
cccctgcagg	cagcacacgt	cccgggcatt	ctccttagcc	acagacagaa	cagccagtgc	420
cagagtctgc	tgctgttccc	ctttaagcac	actcattcac	cacacccgag	gaggccagag	480
gtgcaggag	catgggctgt	cgcttcccc	ttaagcacac	tcattcacca	caccgagga	540
ggccagaagt	gcagggagca	tgggctgggt	gcacctccgc	aggagagaag	gctgagccac	600
cgccgtcccc	ggagcccggc	tcccaggcct	ctcgttttcc	cctacctccc	taagactttt	660
ctgtcactct	ctggccattg	aaaggcttct	gttccttaaa	gtgctgttac	actctccttt	720
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ccctatctta	aaaaaaaaa	aaaaaa				806

<210> 28  
 <211> 696  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (9)  
 <223> n equals a,t,g, or c

<220>  
 <221> SITE  
 <222> (21)  
 <223> n equals a,t,g, or c

<400> 28						
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gatcccttga	gtggaattct	gcagtgcagg	agcccttcgt	gggagctgtc	ccatgtttcc	240
atggtcccca	gtctcccttc	cacttggtgg	ggtcaccaac	tactcaccag	aagggggctt	300
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aacctgccct	accaccacca	cgcgctcagc	ctgatgtgtt	tacatgggtac	tgtatgtatg	420
ggagagcaga	ctgcaccctc	cagcaacaac	agatgaaagc	cagtgcgcct	actaacctgt	480
ccatcttgca	aactacactt	taaaaaaaaa	tcattgcttt	gtattgtagt	aaccaatatg	540
tgcagtatac	gttgaatgta	tatgaacata	ctttcctatt	tctgttcttt	gaaaatgtca	600
gaaatatttt	tttctttctc	attttatgtt	gaactaaaaa	ggattaaaaa	aaaaatctcc	660
agamaaaaaa	aaaaaaaaaa	aaattactgc	ggtcgg			696

<210> 29  
 <211> 1007  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (922)  
 <223> n equals a,t,g, or c

<400> 29						60
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ctcagactat	ggatcctcaa	ggacaaaactc	tgctgctttt	tctctttgtg	gatttccaca	240
gtgcatttcc	agtccagcaa	atggaaatct	ggggagtcta	tactttgctc	acaactcatc	300
tcaatgccat	ccttgtggag	agccacagtg	tagtgcaagg	ttccatccaa	ttcactgttg	360
acaaggtctt	ggagcaacat	caccaggctg	ccaaggctca	gcagaaacta	caggcctcac	420
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gaaagatgtg	tctccagacc	cttcaagcag	ctgacacaca	agagttcagg	accaaactgc	540
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agcagctaac	cctagaaaaa	aaggactcag	cccagggcac	tgaggacgca	cctgataaca	660
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<210> 30  
 <211> 2026  
 <212> DNA  
 <213> Homo sapiens

<400> 30						60
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ggcccgtagg	cgtctggcag	cccggcgcca	tcttcatcga	gcgccatggc	cgcagcctgc	240
gggcccggag	cggccgggta	ctgcttgctc	ctcggttgc	atltgtttct	gctgaccgcg	300
ggccctgccc	tgggctggaa	cgaccctgac	agaatgttgc	tgcgggatgt	aaaagctctt	360
accctccact	atgaccgcta	taccacctcc	cgcaggctgg	atcccatccc	acagttgaaa	420
tgtgttggag	gcacagctgg	ttgtgattct	tataccccaa	aagtcataca	gtgtcagaac	480
aaaggctggg	atgggtatga	tgtacagtgg	gaatgtaaga	cggacttaga	tattgcatac	540
aaatttggaa	aaactgtggt	gagctgtgaa	ggctatgagt	cctctgaaga	ccagtatgta	

ctaagaggtt	cttgtggctt	ggagtataat	ttagattata	cagaacttgg	cctgcagaaa	600
ctgaaggagt	ctggaaagca	gcacggcttt	gcctctttct	ctgattatta	ttataagtgg	660
tcctcggcgg	attcctgtaa	catgagtggg	ttgattacca	tcgtgggtact	ccttggggtc	720
gcctttgtag	tctataagct	gttcctgagt	gacgggcagt	attctcctcc	accgtactct	780
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ttctcagact	cgtgggtacta	cccgtcctat	cctccctcct	accctggcac	gtggaatagg	1080
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aatttttcaa	caaaagtctt	ttaataacaa	aagcatgcag	ttctctgtga	aatctcaaat	1920
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<210> 31  
 <211> 699  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (2)  
 <223> n equals a,t,g, or c

<220>  
 <221> SITE  
 <222> (28)  
 <223> n equals a,t,g, or c

<220>  
 <221> SITE  
 <222> (44)  
 <223> n equals a,t,g, or c

<400> 31						60
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tttacaagta	ttatcctttt	aagatcattt	taatttttagt	tgagtgcaga	gggcttttat	240
aacaaacgtg	cagaaatttt	ggagggctgt	gattttttcca	gtattaaaca	tgcattgcatt	300
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gaatgatctg aagtaattgt gctgtattta tgtttattca ccagtctttg attaaataaa  
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660  
699

<210> 32  
<211> 1264  
<212> DNA  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (1057)  
<223> n equals a,t,g, or c

<400> 32  
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tcccgcatcc tagtccctga gaagcaaaga araatgtgtg gcttcttttg ctttgctttt 360  
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taca 1264

<210> 33  
<211> 997  
<212> DNA  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (855)  
<223> n equals a,t,g, or c

<220>  
<221> SITE  
<222> (881)  
<223> n equals a,t,g, or c

<220>  
<221> SITE  
<222> (916)  
<223> n equals a,t,g, or c

<223> n equals a,t,g, or c

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aaaattgttg	ttgacttggg	tgtggcacct	tgggaagctga	agataattcca	ctgccaaagta	180
acagccctgcc	tcactctatat	caatatgtat	ttatcaatta	tcttcttagc	atttgtcagc	240
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tttgccaaaa	tgatatcaac	cgttgtgtgg	ctaattggctc	ttcttataat	ggtgccaaat	360
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gggctttatg	ggaccntaaa	gttatttatg	cttgggaagg	aaaaaaaaa	aaagggnggg	960
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<213> Homo sapiens

<223> n equals a,t,g, or c

[illegible]

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<210> 35
<211> 1020
<212> DNA
<213> Homo sapiens
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<220>
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<223> n equals a,t,g, or c
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<220>  
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<223> n equals a,t,g, or c
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[illegible]



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<210> 36  
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 <212> DNA  
 <213> Homo sapiens

<400> 36						
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tggcctactt	tgaacagcaa	acttggttgc	gctgttgtca	acctgaaggc	ctctcaaata	180
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c						781

<210> 37  
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 <213> Homo sapiens

<220>  
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 <222> (8)  
 <223> n equals a,t,g, or c

<220>  
 <221> SITE  
 <222> (586)  
 <223> n equals a,t,g, or c

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ttgaatttga	tatgatgtat	atatattcac	ctctagtcca	taggtacata	tagtctatat	180
attaaaaaga	cattggattt	tgacttaaac	tagatgtttc	tcaagcacac	caagacggtg	240
ctagagcctg	ggtttggcca	gagaattggg	tcccggctcag	aagtgagtgg	ggatggctgg	300
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agctgtatct	ggtgagaaca	gatgcgtagt	cccggagctc	aagtctctggg	aagggcagtg	840
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<221> SITE

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	aagggtgtccc	cagtgaaggc	gacagccctg	ggcgggtggga	agttggaagc	cacgttcacc	240
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ggcaaatata gcgcctgtga gcccctcccc caytcccacc cccaccytcc cccaccgcca 360
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cagctctgcc cacctccaag gaggggctgg cctctccctc ctgggggggt ggtggccctg 480
acatcagaca ccgggtgtga caggcttgtc cgcagtcgag atggaccaga tcacgcctgc 540
cctctgggag gccctagcca ttgacacatt gaggaagctg aggattggga caaggaggcc 600
aaggattaga tgggggagc aagctcatgt acctgcagga gctgcccagg agggaccayt 660
acatctttta ctgcaaagac cagcaccatg ggggcstgct ccacatggga aagcttggtg 720
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<210> 43

<211> 2581

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (1591)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (1703)

<223> n equals a,t,g, or c

<400> 43

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ccagcttctc ccagccctc ttccaggctg tggstgccat ctgccgcctc ctcagcatcc 180
ggcaccocga ggagctgtcc ctgctccggg ctcttgagaa gaaggagaag aagaagaaag 240
agaaggagcc agaggaagag ctctatgact tgagcaaggt tgtcttggct gggggcggtg 300
cacctgcact gttccggggg atgccagctc acttctcgga cagcgcccag actgaggcct 360
gctaccacat gctgagccgg cccagccgc caccgaccc cctcctgctc cagcgtctgc 420
cacggcccag ctccctgtca gacaagacc agctccacag caggtggctg gactcgtcgc 480
ggtgtctcat gcagcagggc atcaaggccg gggacgcact ctggctgcgc ttcaagtact 540
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1591-1703 Homo sapiens

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&lt;210&gt; 44

&lt;211&gt; 796

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 44

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&lt;210&gt; 45

&lt;211&gt; 2017

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 45

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<210> 46  
 <211> 981  
 <212> DNA  
 <213> Homo sapiens

<400> 46						
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<210> 47  
 <211> 146  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (146)  
 <223> Xaa equals stop translation

&lt;400&gt; 47

Met His Tyr Gln Met Ser Val Thr Leu Lys Tyr Glu Ile Lys Lys Leu  
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Ile Tyr Val His Leu Val Ile Trp Leu Leu Val Ala Lys Met Ser  
 20 25 30

Val Gly His Leu Arg Leu Leu Ser His Asp Gln Val Ala Met Pro Tyr  
 35 40 45

Gln Trp Glu Tyr Pro Tyr Leu Leu Ser Ile Leu Pro Ser Leu Leu Gly  
 50 55 60

Leu Leu Ser Phe Pro Arg Asn Asn Ile Ser Tyr Leu Val Leu Ser Met  
 65 70 75 80

Ile Ser Met Gly Leu Phe Ser Ile Ala Pro Leu Ile Tyr Gly Ser Met  
 85 90 95

Glu Met Phe Pro Ala Ala Gln Pro Ser Thr Ala Met Ala Arg Pro Thr  
 100 105 110

Val Ser Ser Leu Val Phe Leu Pro Phe Pro Ser Cys Thr Trp Cys Trp  
 115 120 125

Cys Trp Gln Cys Lys Cys Met Pro Gly Ser Cys Thr Thr Ala Arg Ser  
 130 135 140

Ser Xaa  
 145

&lt;210&gt; 48

&lt;211&gt; 312

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (312)

&lt;223&gt; Xaa equals stop translation

&lt;400&gt; 48

Met Asn Ser Val Val Ser Leu Leu Leu Ile Leu Glu Pro Asp Lys Gln  
 1 5 10 15

Glu Ala Leu Ile Glu Ser Leu Cys Glu Lys Leu Val Lys Phe Arg Glu  
 20 25 30

Gly Glu Arg Pro Ser Leu Arg Leu Gln Leu Leu Ser Asn Leu Phe His  
 35 40 45

Gly Met Asp Lys Asn Thr Pro Val Arg Tyr Thr Val Tyr Cys Ser Leu  
 50 55 60

Ile Lys Val Ala Ala Ser Cys Gly Ala Ile Gln Tyr Ile Pro Thr Glu  
 65 70 75 80

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Leu Asp Gln Val Arg Lys Trp Ile Ser Asp Trp Asn Leu Thr Thr Glu  
 85 90 95  
 Lys Lys His Thr Leu Leu Arg Leu Leu Tyr Glu Ala Leu Val Asp Cys  
 100 105 110  
 Lys Lys Ser Asp Ala Ala Ser Lys Val Met Val Glu Leu Leu Gly Ser  
 115 120 125  
 Tyr Thr Glu Asp Asn Ala Ser Gln Ala Arg Val Asp Ala His Arg Cys  
 130 135 140  
 Ile Val Arg Ala Leu Lys Asp Pro Asn Ala Phe Leu Phe Asp His Leu  
 145 150 155 160  
 Leu Thr Leu Lys Pro Val Lys Phe Leu Glu Gly Glu Leu Ile His Asp  
 165 170 175  
 Leu Leu Thr Ile Phe Val Ser Ala Lys Leu Ala Ser Tyr Val Lys Phe  
 180 185 190  
 Tyr Gln Asn Asn Lys Asp Phe Ile Asp Ser Leu Gly Leu Leu His Glu  
 195 200 205  
 Gln Asn Met Ala Lys Met Arg Leu Leu Thr Phe Met Gly Met Ala Val  
 210 215 220  
 Glu Asn Lys Glu Ile Ser Phe Asp Thr Met Gln Gln Glu Leu Gln Ile  
 225 230 235 240  
 Gly Ala Asp Asp Val Glu Ala Phe Val Ile Asp Ala Val Arg Thr Lys  
 245 250 255  
 Met Val Tyr Cys Lys Ile Asp Gln Thr Gln Arg Lys Val Val Val Ser  
 260 265 270  
 His Ser Thr His Arg Thr Phe Gly Lys Gln Gln Trp Gln Gln Leu Tyr  
 275 280 285  
 Asp Thr Leu Asn Ala Trp Lys Gln Asn Leu Asn Lys Val Lys Asn Ser  
 290 295 300  
 Leu Leu Ser Leu Ser Asp Thr Xaa  
 305 310

<210> 49  
 <211> 64  
 <212> PRT  
 <213> Homo sapiens

<400> 49  
 Met Met Ser Phe Phe Cys Phe Val Met Gly Val Thr Val Ala Ala Thr  
 1 5 10 15

Phe Thr Ala Ile Val Pro Arg Trp Arg Leu Ser Gln Lys Glu Ile Gly  
 20 25 30



Ser Val Leu Ser Val Trp Leu Ser Arg Trp Arg Glu Asn Ser Leu Arg  
                   35                  40                  45

Ser Leu Val Ser Gln Ser Val Ala Arg Ser Gly Lys Val Val Ile Arg  
           50                  55                  60

<210> 50  
 <211> 467  
 <212> PRT  
 <213> Homo sapiens

<400> 50  
 Met Leu Ser Arg Pro Gln Pro Pro Pro Asp Pro Leu Leu Leu Gln Arg  
   1                  5                  10                  15

Leu Pro Arg Pro Ser Ser Leu Ser Asp Lys Thr Gln Leu His Ser Arg  
                   20                  25                  30

Trp Leu Asp Ser Ser Arg Cys Leu Met Gln Gln Gly Ile Lys Ala Gly  
           35                  40                  45

Asp Ala Leu Trp Leu Arg Phe Lys Tyr Tyr Ser Phe Phe Asp Leu Asp  
           50                  55                  60

Pro Lys Thr Asp Pro Val Arg Leu Thr Gln Leu Tyr Glu Gln Ala Arg  
           65                  70                  75                  80

Trp Asp Leu Leu Leu Glu Glu Ile Asp Cys Thr Glu Glu Glu Met Met  
                   85                  90                  95

Val Phe Ala Ala Leu Gln Tyr His Ile Asn Lys Leu Ser Gln Ser Gly  
                   100                  105                  110

Glu Val Gly Glu Pro Ala Gly Thr Asp Pro Gly Leu Asp Asp Leu Asp  
           115                  120                  125

Val Ala Leu Ser Asn Leu Glu Val Lys Leu Glu Gly Ser Ala Pro Thr  
           130                  135                  140

Asp Val Leu Asp Ser Leu Thr Thr Ile Pro Glu Leu Lys Asp His Leu  
           145                  150                  155                  160

Arg Ile Phe Arg Pro Arg Lys Leu Thr Leu Lys Gly Tyr Arg Gln His  
                   165                  170                  175

Trp Val Val Phe Lys Glu Thr Thr Leu Ser Tyr Tyr Lys Ser Gln Asp  
                   180                  185                  190

Glu Ala Pro Gly Asp Pro Ile Gln Gln Leu Asn Leu Lys Gly Cys Glu  
           195                  200                  205

Val Val Pro Asp Val Asn Val Ser Gly Gln Lys Phe Cys Ile Lys Leu  
           210                  215                  220

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<210> 51
<211> 83
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (83)
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<223> Xaa equals stop translation

<400> 51

Met Arg Pro Gly Arg Gly Ala Gly Thr Pro Gly Arg Pro Gly Arg Gly  
1 5 10 15

Arg Gly Leu Ala Ala Thr Cys Ser Leu Ser Ser Pro Ser His Leu Leu  
20 25 30

Pro Thr Leu Leu His Thr Phe Ser Phe Ser Leu Pro Pro Pro Ser Pro  
35 40 45

Ala Ala Pro Arg Gln Pro Ser Pro Pro Ala Leu Leu Leu Pro Gly Pro  
50 55 60

Gln Lys Pro Arg Pro Gly Asp Pro Thr Tyr Thr Gly Ala Leu Thr Asp  
65 70 75 80

Trp Ser Xaa

<210> 52

<211> 63

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (63)

<223> Xaa equals stop translation

<400> 52

Met Phe Leu Val Phe Phe Leu Ser Phe Phe Ser His Ser Ile Ser Ala  
1 5 10 15

Leu Thr Leu Val Cys Ser Gln Gly Gly Lys Ala Asp Met Asn Leu Leu  
20 25 30

Ser Trp Asp Phe Arg Pro His Trp Leu Glu Gly Ile Arg Phe Leu Leu  
35 40 45

Gly Trp Gly Gln Ala Leu Met Ala Gly Leu Phe Pro Trp Leu Xaa  
50 55 60

<210> 53

<211> 124

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (114)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

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<222> (86)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>  
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 <222> (99)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
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 <222> (180)  
 <223> Xaa equals stop translation

<400> 54  
 Met Thr Ser Ala Gly Pro Val Xaa Leu Phe Leu Leu Val Ser Ile Ser  
           1                  5                  10                  15  
 Thr Ser Val Ile Leu Met Gln His Leu Leu Xaa Ala Ser Tyr Cys Asp  
                   20                  25                  30  
 Leu Leu His Lys Ala Ala Ala His Leu Gly Cys Trp Gln Lys Val Asp  
                   35                  40                  45  
 Pro Ala Leu Cys Ser Asn Val Leu Gln His Pro Trp Thr Glu Glu Cys  
           50                  55                  60  
 Met Trp Pro Gln Gly Val Leu Val Lys His Ser Lys Asn Val Tyr Lys  
           65                  70                  75                  80  
 Ala Val Gly Xaa Xaa Xaa Val Ala Ile Pro Ser Asp Val Ser His Phe  
                   85                  90                  95  
 Arg Phe Xaa Phe Phe Phe Ser Lys Pro Leu Arg Ile Leu Asn Ile Leu  
                   100                  105                  110  
 Leu Leu Leu Glu Gly Ala Val Ile Val Tyr Gln Leu Tyr Ser Leu Met  
           115                  120                  125  
 Ser Ser Glu Lys Trp His Gln Thr Ile Ser Leu Ala Leu Ile Leu Phe  
           130                  135                  140  
 Ser Asn Tyr Tyr Ala Phe Phe Lys Leu Leu Arg Asp Arg Leu Val Leu  
           145                  150                  155                  160  
 Gly Lys Ala Tyr Ser Tyr Ser Ala Ser Pro Gln Arg Asp Leu Asp His  
                   165                  170                  175  
 Arg Phe Ser Xaa  
                   180

<210> 55  
 <211> 287  
 <212> PRT  
 <213> Homo sapiens

<220>  
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 <222> (221)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (287)  
 <223> Xaa equals stop translation

<400> 55

Met	Pro	Leu	Phe	Lys	Leu	Tyr	Met	Val	Met	Ser	Ala	Cys	Phe	Leu	Ala	1	5	10	15
Ala	Gly	Ile	Phe	Trp	Val	Ser	Ile	Leu	Cys	Arg	Asn	Thr	Tyr	Ser	Val	20	25	30	
Phe	Lys	Ile	His	Trp	Leu	Met	Ala	Ala	Leu	Ala	Phe	Thr	Lys	Ser	Ile	35	40	45	
Ser	Leu	Leu	Phe	His	Ser	Ile	Asn	Tyr	Tyr	Phe	Ile	Asn	Ser	Gln	Gly	50	55	60	
Pro	Pro	His	Arg	Arg	Pro	Cys	Arg	His	Val	Leu	His	Arg	Thr	Pro	Ala	65	70	75	80
Glu	Gly	Arg	Pro	Pro	Leu	His	His	His	Arg	Pro	Asp	Trp	Leu	Arg	Leu	85	90	95	
Gly	Phe	Ile	Lys	Tyr	Val	Leu	Ser	Asp	Lys	Glu	Lys	Lys	Val	Phe	Gly	100	105	110	
Ile	Val	Ile	Pro	Met	Gln	Val	Leu	Ala	Asn	Val	Ala	Tyr	Ile	Ile	Ile	115	120	125	
Glu	Ser	Arg	Glu	Glu	Gly	Ala	Thr	Asn	Tyr	Val	Leu	Trp	Lys	Glu	Ile	130	135	140	
Leu	Phe	Leu	Val	Asp	Leu	Ile	Cys	Cys	Gly	Ala	Ile	Leu	Phe	Pro	Val	145	150	155	160
Val	Trp	Ser	Ile	Arg	His	Leu	Gln	Asp	Ala	Ser	Gly	Thr	Asp	Gly	Lys	165	170	175	
Val	Ala	Val	Asn	Leu	Ala	Lys	Leu	Lys	Leu	Phe	Arg	His	Tyr	Tyr	Val	180	185	190	
Met	Val	Ile	Cys	Tyr	Val	Tyr	Phe	Thr	Arg	Ile	Ile	Ala	Ile	Leu	Leu	195	200	205	
Gln	Val	Ala	Val	Pro	Phe	Gln	Trp	Gln	Trp	Leu	Tyr	Xaa	Leu	Leu	Val	210	215	220	
Glu	Gly	Ser	Thr	Leu	Ala	Phe	Phe	Val	Leu	Thr	Gly	Tyr	Lys	Phe	Gln	225	230	235	240
Pro	Thr	Gly	Asn	Asn	Pro	Tyr	Leu	Gln	Leu	Pro	Gln	Glu	Asp	Glu	Glu	245	250	255	
Asp	Val	Gln	Met	Glu	Gln	Val	Met	Thr	Asp	Ser	Gly	Phe	Arg	Glu	Gly	260	265	270	

Leu Ser Lys Val Asn Lys Thr Ala Ser Gly Arg Glu Leu Leu Xaa  
 275 280 285

<210> 56  
 <211> 34  
 <212> PRT  
 <213> Homo sapiens

<220>  
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 <222> (34)  
 <223> Xaa equals stop translation

<400> 56  
 Met Pro Met Val Phe Leu Leu Leu Phe Asn Leu Met Ser Trp Leu Ile  
 1 5 10 15

Arg Asn Ala Arg Val Ile Leu Arg Ser Leu Asn Leu Lys Arg Asp Gln  
 20 25 30

Val Xaa

<210> 57  
 <211> 24  
 <212> PRT  
 <213> Homo sapiens

<220>  
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 <222> (24)  
 <223> Xaa equals stop translation

<400> 57  
 Met Lys Ile Val Val Leu Leu Pro Leu Phe Leu Leu Ala Thr Phe Pro  
 1 5 10 15

Arg Lys Leu Gln Thr Cys Leu Xaa  
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<210> 58  
 <211> 47  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (47)  
 <223> Xaa equals stop translation

<400> 58  
 Met Ser Gly Gly Glu Gly Ala Ala Leu Pro Ile Leu Leu Leu Leu  
 1 5 10 15

Ala Leu Arg Gly Thr Phe His Gly Ala Arg Pro Gly Gly Gly Ala Ser

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Gly Ile Trp Cys Leu Leu Leu Pro Glu Gln Glu Pro Pro Val Xaa  
 35 40 45

<210> 59  
 <211> 114  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (114)  
 <223> Xaa equals stop translation

<400> 59  
 Met Ala Arg Gly Ser Leu Arg Arg Leu Leu Arg Leu Leu Val Leu Gly  
 1 5 10 15

Leu Trp Leu Ala Leu Leu Arg Ser Val Ala Gly Glu Gln Ala Pro Gly  
 20 25 30

Thr Ala Pro Cys Ser Arg Gly Ser Ser Trp Ser Ala Asp Leu Asp Lys  
 35 40 45

Cys Met Asp Cys Ala Ser Cys Arg Ala Arg Pro His Ser Asp Phe Cys  
 50 55 60

Leu Gly Cys Ala Ala Ala Pro Pro Ala Pro Phe Arg Leu Leu Trp Pro  
 65 70 75 80

Ile Leu Gly Gly Ala Leu Ser Leu Thr Phe Val Leu Gly Leu Leu Ser  
 85 90 95

Gly Phe Leu Val Trp Arg Arg Cys Arg Arg Glu Arg Ser Ser Pro Pro  
 100 105 110

Pro Xaa

<210> 60  
 <211> 32  
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<220>  
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 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
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 <222> (32)  
 <223> Xaa equals stop translation

<400> 60



Met Val Cys Ile Leu Val Leu Thr Leu Val Ser Tyr Ser Ser Leu Val  
 1 5 10 15  
 Asn Ser Pro Leu Pro Phe Val His Leu Xaa Val Gly Ile Ser Ala Xaa  
 20 25 30

<210> 61  
 <211> 81  
 <212> PRT  
 <213> Homo sapiens

<220>  
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 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (33)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (81)  
 <223> Xaa equals stop translation

<400> 61  
 Met Thr Gly Gly Phe Leu Ser Cys Ile Leu Gly Leu Val Leu Pro Leu  
 1 5 10 15

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Xaa Pro Ala Gly Pro Pro Arg Cys Thr Pro Gly Cys Asn Ala Ser Gly  
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Gly Arg Met Phe Ile Leu Gln Ser Lys Glu Ala Ile His Ser Gln Leu  
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Pro His Leu Lys Cys Thr Gly Ala Gly Lys Arg Val Trp Ser Pro Pro  
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 85 90 95

Cys Arg Gln His Thr Ser Arg Ala Phe Ser Leu Ala Thr Asp Arg Thr  
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Val Gln Gly Ser Ile Gln Phe Thr Val Asp Lys Val Leu Glu Gln His  
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His Gln Ala Ala Lys Ala Gln Gln Lys Leu Gln Ala Ser Leu Ser Val  
65 70 75 80  
Ala Val Asn Ser Ile Met Ser Ile Leu Thr Gly Ser Thr Arg Ser Ser  
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Phe Arg Lys Met Cys Leu Gln Thr Leu Gln Ala Ala Asp Thr Gln Glu  
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115 120 125  
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130					135					140					
Lys	Leu	Lys	Glu	Ser	Gly	Lys	Gln	His	Gly	Phe	Ala	Ser	Phe	Ser	Asp
145					150					155					160
Tyr	Tyr	Tyr	Lys	Trp	Ser	Ser	Ala	Asp	Ser	Cys	Asn	Met	Ser	Gly	Leu
					165				170					175	
Ile	Thr	Ile	Val	Val	Leu	Leu	Gly	Ile	Ala	Phe	Val	Val	Tyr	Lys	Leu
			180					185					190		
Phe	Leu	Ser	Asp	Gly	Gln	Tyr	Ser	Pro	Pro	Pro	Tyr	Ser	Glu	Tyr	Pro
		195					200					205			
Pro	Phe	Ser	His	Arg	Tyr	Gln	Arg	Phe	Thr	Asn	Ser	Ala	Gly	Pro	Pro
	210					215					220				
Pro	Pro	Gly	Phe	Lys	Ser	Glu	Phe	Thr	Gly	Pro	Gln	Asn	Thr	Gly	His
225					230					235					240
Gly	Ala	Thr	Ser	Gly	Phe	Gly	Ser	Ala	Phe	Thr	Gly	Gln	Gln	Gly	Tyr
				245					250					255	
Glu	Asn	Ser	Gly	Pro	Gly	Phe	Trp	Thr	Gly	Leu	Gly	Thr	Gly	Gly	Ile
			260					265					270		
Leu	Gly	Tyr	Leu	Phe	Gly	Ser	Asn	Arg	Ala	Ala	Thr	Pro	Phe	Ser	Asp
		275					280					285			
Ser	Trp	Tyr	Tyr	Pro	Ser	Tyr	Pro	Pro	Ser	Tyr	Pro	Gly	Thr	Trp	Asn
	290					295					300				
Arg	Ala	Tyr	Ser	Pro	Leu	His	Gly	Gly	Ser	Gly	Ser	Tyr	Ser	Val	Cys
305					310					315					320
Ser	Asn	Ser	Asp	Thr	Lys	Thr	Arg	Thr	Ala	Ser	Gly	Tyr	Gly	Gly	Thr
			325						330				335		

Arg Arg Arg

<210> 67

<211> 27

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (27)

<223> Xaa equals stop translation

<400> 67

Met	His	Ala	Leu	Ile	Leu	Gln	Phe	Ile	Phe	Ser	Leu	Cys	Met	Tyr	Ile
1				5					10					15	

Ser	Leu	Phe	Ser	Ala	Ala	Arg	Phe	Leu	Phe	Xaa
			20				25			

<210> 68  
 <211> 76  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (64)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (65)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 68  
 Met Ser Gln Ser Val Ser Ser Ser Phe Leu Ile Leu Thr Leu Leu Leu  
           1                  5                  10                  15  
 Ser Val Gly Phe Gln Cys Leu Thr Leu Tyr Thr Thr Val Thr Thr Thr  
                   20                  25                  30  
 Cys Leu Trp Gly Pro Pro Arg Ala Ala Gly Arg Leu Phe Val Gln Ser  
           35                  40                  45  
 Leu Pro Ser Cys Glu Cys Cys Cys Arg Ala Arg Arg Gly Ala Val Xaa  
           50                  55                  60  
 Xaa Ser Pro Pro Trp Arg Pro Trp Pro Glu Gln Val  
           65                  70                  75

<210> 69  
 <211> 216  
 <212> PRT  
 <213> Homo sapiens

<220>  
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 <222> (216)  
 <223> Xaa equals stop translation

<400> 69  
 Met Tyr Leu Ser Ile Ile Phe Leu Ala Phe Val Ser Ile Asp Arg Cys  
           1                  5                  10                  15  
 Leu Gln Leu Thr His Ser Cys Lys Ile Tyr Arg Ile Gln Glu Pro Gly  
                   20                  25                  30  
 Phe Ala Lys Met Ile Ser Thr Val Val Trp Leu Met Val Leu Leu Ile  
           35                  40                  45  
 Met Val Pro Asn Met Met Ile Pro Ile Lys Asp Ile Lys Glu Lys Ser  
           50                  55                  60  
 Asn Val Gly Cys Met Glu Phe Lys Lys Glu Phe Gly Arg Asn Trp His

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<210> 70
<211> 407
<212> PRT
<213> Homo sapiens
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<400> 70
Met His Pro Ala Val Phe Leu Ser Leu Pro Asp Leu Arg Cys Ser Leu
  1             5             10             15
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Ser Leu Asp Thr Glu Asn Ile Asp Glu Ile Leu Asn Asn Ala Asp Val  
35 40 45

His Pro Ile Phe Glu Glu Ala Ser Asp Val Ile Lys Glu Glu Phe Pro  
65 70 75 80

Asn Glu Asn Gln Val Val Phe Ala Arg Val Asp Cys Asp Gln His Ser  
85 90 95

Asp Ile Ala Gln Arg Tyr Arg Ile Ser Lys Tyr Pro Thr Leu Lys Leu  
 100 105 110

Phe Arg Asn Gly Met Met Met Lys Arg Glu Tyr Arg Gly Gln Arg Ser  
 115 120 125

Val Lys Ala Leu Ala Asp Tyr Ile Arg Gln Gln Lys Ser Asp Pro Ile  
 130 135 140

Gln Glu Ile Arg Asp Leu Ala Glu Ile Thr Thr Leu Asp Arg Ser Lys  
 145 150 155 160

Arg Asn Ile Ile Gly Tyr Phe Glu Gln Lys Asp Ser Asp Asn Tyr Arg  
 165 170 175

Val Phe Glu Arg Val Ala Asn Ile Leu His Asp Asp Cys Ala Phe Leu  
 180 185 190

Ser Ala Phe Gly Asp Val Ser Lys Pro Glu Arg Tyr Ser Gly Asp Asn  
 195 200 205

Ile Ile Tyr Lys Pro Pro Gly His Ser Ala Pro Asp Met Val Tyr Leu  
 210 215 220

Gly Ala Met Thr Asn Phe Asp Val Thr Tyr Asn Trp Ile Gln Asp Lys  
 225 230 235 240

Cys Val Pro Leu Val Arg Glu Ile Thr Phe Glu Asn Gly Glu Glu Leu  
 245 250 255

Thr Glu Glu Gly Leu Pro Phe Leu Ile Leu Phe His Met Lys Glu Asp  
 260 265 270

Thr Glu Ser Leu Glu Ile Phe Gln Asn Glu Val Ala Arg Gln Leu Ile  
 275 280 285

Ser Glu Lys Gly Thr Ile Asn Phe Leu His Ala Asp Cys Asp Lys Phe  
 290 295 300

Arg His Pro Leu Leu His Ile Gln Lys Thr Pro Ala Asp Cys Pro Val  
 305 310 315 320

Ile Ala Ile Asp Ser Phe Arg His Met Tyr Val Phe Gly Asp Phe Lys  
 325 330 335

Asp Val Leu Ile Pro Gly Lys Leu Lys Gln Phe Val Phe Asp Leu His  
 340 345 350

Ser Gly Lys Leu His Arg Glu Phe His His Gly Pro Asp Pro Thr Asp  
 355 360 365

Thr Ala Pro Gly Glu Gln Ala Gln Asp Val Ala Ser Ser Pro Pro Glu  
 370 375 380

Ser Ser Phe Gln Lys Leu Ala Pro Ser Glu Tyr Arg Tyr Thr Leu Leu  
 385 390 395 400



Arg Asp Arg Asp Glu Leu Xaa  
405

<210> 71  
<211> 45  
<212> PRT  
<213> Homo sapiens

<400> 71  
Met Ser Met Cys Ile His Ala Lys Lys His Leu Ile Cys Ile Cys Phe  
1 5 10 15

Arg Lys Gly Gly Asn Glu Ala Thr Cys Leu Lys Ile Leu Leu Tyr Lys  
20 25 30

Ala Phe Gln Pro Phe Pro Leu Ser Phe Ala Leu Ile Phe  
35 40 45

<210> 72  
<211> 34  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (34)  
<223> Xaa equals stop translation

<400> 72  
Met Pro Leu Lys Ala Val Thr Trp Pro Thr Leu Asn Ser Lys Leu Val  
1 5 10 15

Ala Ala Val Val Asn Leu Lys Ala Ser Gln Met Pro Ala Ser Ser Arg  
20 25 30

Val Xaa

<210> 73  
<211> 160  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (55)  
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 73  
Met Ala Pro Leu Ile Pro Ala Val Ala Arg Gly Ser Ser Phe Leu Leu  
1 5 10 15

Leu His Ala Leu Thr Leu Trp Gly Ala Pro Phe Pro Thr Thr Trp Val  
20 25 30

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Ser Cys Gln Pro Arg Ser Val Leu Arg Pro Ser Pro Val Arg Pro Gly  
 35 40 45

Val Pro Pro Leu Ala Ala Xaa Pro Leu Cys Ser Cys Val Ser Leu Phe  
 50 55 60

Phe Phe Arg Val Val Leu His Val Ser Ser Ile Cys Gly Val Ala Leu  
 65 70 75 80

Gly Pro Phe Arg Thr Gly Ala Pro Ala Gln Leu Leu Gly Pro Pro Pro  
 85 90 95

Val Ala Gln Gly Arg Leu Phe Val Pro Gln Pro Gln Ala Val Ser Gly  
 100 105 110

Glu Asn Arg Cys Val Val Pro Glu Leu Lys Phe Trp Glu Gly Gln Cys  
 115 120 125

Pro Phe Leu Trp Gly Pro Gly Leu Val Leu His Cys Phe Lys Arg Ser  
 130 135 140

Cys His Ser Asn Arg Gln Pro Cys Asn Arg Arg Ala Ala Cys Ser Pro  
 145 150 155 160

<210> 74

<211> 26

<212> PRT

<213> Homo sapiens

<220>

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<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals stop translation

<400> 74

Met Ala Gly Ile His Arg Ala Phe Leu Val Phe Cys Leu Trp Gly Leu  
 1 5 10 15

Xaa Leu Cys Val Val Gly Gly Pro Trp Xaa  
 20 25

<210> 75

<211> 91

<212> PRT

<213> Homo sapiens

<400> 75

Met Ala Ala Ala Glu Glu Glu Asp Gly Gly Pro Glu Ala Lys Ile Ala

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<210> 76
<211> 33
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (33)
<223> Xaa equals stop translation

<400> 76
Met Thr Ile Trp Gln Leu Phe Ala Val Leu Ile Val Leu Phe Ala Lys
 1             5             10             15
Ser Arg Glu Ile Ser Thr Glu Gly Glu Pro Cys Val Leu Ser Lys Asn
      20             25             30

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<210> 77
<211> 23
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (6)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (23)
<223> Xaa equals stop translation

<400> 77
Met Leu Asn Pro Phe Xaa Gln Leu Leu Leu Val Leu Leu Phe Pro Glu
 1             5             10             15

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Ala Leu Thr Ser Asp Thr Gly Cys Asp Arg Leu Val Arg Ser Arg Asp

145 150 155 160

Gly Pro Asp His Ala Cys Pro Leu Gly Gly Pro Ser His  
165 170

<210> 79  
<211> 208  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (148)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (186)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (208)  
<223> Xaa equals stop translation

<400> 79  
Met Ala Asp Ser Ser Tyr Thr Ser Glu Val Gln Ala Ile Leu Ala Phe  
1 5 10 15  
Leu Ser Leu Gln Arg Thr Gly Ser Gly Gly Pro Gly Asn His Pro His  
20 25 30  
Gly Pro Asp Ala Ser Ala Glu Gly Leu Asn Pro Tyr Gly Leu Val Ala  
35 40 45  
Pro Arg Phe Gln Arg Lys Phe Lys Ala Lys Gln Leu Thr Pro Arg Ile  
50 55 60  
Leu Glu Ala His Gln Asn Val Ala Gln Leu Ser Leu Ala Glu Ala Gln  
65 70 75 80  
Leu Arg Phe Ile Gln Ala Trp Gln Ser Leu Pro Asp Phe Gly Ile Ser  
85 90 95  
Tyr Val Met Val Arg Phe Lys Gly Ser Arg Lys Asp Glu Ile Leu Gly  
100 105 110  
Ile Ala Asn Asn Arg Leu Ile Arg Ile Asp Leu Ala Val Gly Asp Val  
115 120 125  
Val Lys Thr Trp Arg Phe Ser Asn Met Arg Gln Trp Asn Val Asn Trp  
130 135 140  
Asp Ile Arg Xaa Val Ala Ile Glu Phe Asp Glu His Ile Asn Val Ala  
145 150 155 160  
Phe Ser Cys Val Ser Ala Ser Cys Arg Ile Val His Glu Tyr Ile Gly

Pro His Pro Arg Arg Pro Glu Val Gln Gly Ala Trp Ala Val Val Pro

130

135

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Leu Xaa  
145

<210> 81  
<211> 23  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (23)  
<223> Xaa equals stop translation

<400> 81  
Met Ala Ala Ala Cys Gly Pro Gly Ala Ala Gly Thr Ala Cys Ser Ser  
1 5 10 15

Ala Cys Ile Cys Phe Cys Xaa  
20

<210> 82  
<211> 31  
<212> PRT  
<213> Homo sapiens

<220>  
<221> SITE  
<222> (21)  
<223> Xaa equals any of the naturally occurring L-amino acids

<220>  
<221> SITE  
<222> (31)  
<223> Xaa equals stop translation

<400> 82  
Met Lys Thr Leu Phe Leu Gly Val Thr Leu Gly Leu Ala Leu Pro Cys  
1 5 10 15

Pro Ser Pro Trp Xaa Arg Arg Ile Ser Gln Gly Pro Gly Thr Xaa  
20 25 30

<210> 83  
<211> 374  
<212> PRT  
<213> Homo sapiens

<400> 83  
Met Ser Val Pro Ala Phe Ile Asp Ile Ser Glu Glu Asp Gln Ala Ala  
1 5 10 15

Glu Leu Arg Ala Tyr Leu Lys Ser Lys Gly Ala Glu Ile Ser Glu Glu  
20 25 30

Asn Ser Glu Gly Gly Leu His Val Asp Leu Ala Gln Ile Ile Glu Ala  
 35 40 45  
 Cys Asp Val Cys Leu Lys Glu Asp Asp Lys Asp Val Glu Ser Val Met  
 50 55 60  
 Asn Ser Val Val Ser Leu Leu Leu Ile Leu Glu Pro Asp Lys Gln Glu  
 65 70 75 80  
 Ala Leu Ile Glu Ser Leu Cys Glu Lys Leu Val Lys Phe Arg Glu Gly  
 85 90 95  
 Glu Arg Pro Ser Leu Arg Leu Gln Leu Leu Ser Asn Leu Phe His Gly  
 100 105 110  
 Met Asp Lys Asn Thr Pro Val Arg Tyr Thr Val Tyr Cys Ser Leu Ile  
 115 120 125  
 Lys Val Ala Ala Ser Cys Gly Ala Ile Gln Tyr Ile Pro Thr Glu Leu  
 130 135 140  
 Asp Gln Val Arg Lys Trp Ile Ser Asp Trp Asn Leu Thr Thr Glu Lys  
 145 150 155 160  
 Lys His Thr Leu Leu Arg Leu Leu Tyr Glu Ala Leu Val Asp Cys Lys  
 165 170 175  
 Lys Ser Asp Ala Ala Ser Lys Val Met Val Glu Leu Leu Gly Ser Tyr  
 180 185 190  
 Thr Glu Asp Asn Ala Ser Gln Ala Arg Val Asp Ala His Arg Cys Ile  
 195 200 205  
 Val Arg Ala Leu Lys Asp Pro Asn Ala Phe Leu Phe Asp His Leu Leu  
 210 215 220  
 Thr Leu Lys Pro Val Lys Phe Leu Glu Gly Glu Leu Ile His Asp Leu  
 225 230 235 240  
 Leu Thr Ile Phe Val Ser Ala Lys Leu Ala Ser Tyr Val Lys Phe Tyr  
 245 250 255  
 Gln Asn Asn Lys Asp Phe Ile Asp Ser Leu Gly Leu Leu His Glu Gln  
 260 265 270  
 Asn Met Ala Lys Met Arg Leu Leu Thr Phe Met Gly Met Ala Val Glu  
 275 280 285  
 Asn Lys Glu Ile Ser Phe Asp Thr Met Gln Gln Glu Leu Gln Ile Gly  
 290 295 300  
 Ala Asp Asp Val Glu Ala Phe Val Ile Asp Ala Val Arg Thr Lys Met  
 305 310 315 320  
 Val Tyr Cys Lys Ile Asp Gln Thr Gln Arg Lys Val Val Val Ser His  
 325 330 335

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Ser Thr His Arg Thr Phe Gly Lys Gln Gln Trp Gln Gln Leu Tyr Asp  
 340 345 350

Thr Leu Asn Ala Trp Lys Gln Asn Leu Asn Lys Val Lys Asn Ser Leu  
 355 360 365

Leu Ser Leu Ser Asp Thr  
 370

<210> 84  
 <211> 13  
 <212> PRT  
 <213> Homo sapiens

<400> 84  
 Met Ser Val Pro Ala Phe Ile Asp Ile Ser Glu Glu Asp  
 1 5 10

<210> 85  
 <211> 15  
 <212> PRT  
 <213> Homo sapiens

<400> 85  
 Gln Ala Ala Glu Leu Arg Ala Tyr Leu Lys Ser Lys Gly Ala Glu  
 1 5 10 15

<210> 86  
 <211> 17  
 <212> PRT  
 <213> Homo sapiens

<400> 86  
 Ile Ser Glu Glu Asn Ser Glu Gly Gly Leu His Val Asp Leu Ala Gln  
 1 5 10 15

Ile

<210> 87  
 <211> 18  
 <212> PRT  
 <213> Homo sapiens

<400> 87  
 Ile Glu Ala Cys Asp Val Cys Leu Lys Glu Asp Asp Lys Asp Val Glu  
 1 5 10 15

Ser Val

<210> 88  
 <211> 16

<212> PRT  
 <213> Homo sapiens

<400> 88  
 Val Ala Arg Pro Ser Ser Leu Phe Arg Ser Ala Trp Ser Cys Glu Trp  
           1                  5                  10                  15

<210> 89  
 <211> 12  
 <212> PRT  
 <213> Homo sapiens

<400> 89  
 Leu Arg Leu Gln Leu Leu Ser Asn Leu Phe His Gly  
           1                  5                  10

<210> 90  
 <211> 17  
 <212> PRT  
 <213> Homo sapiens

<400> 90  
 Lys Asp Val Glu Ser Val Met Asn Ser Val Val Ser Leu Leu Ile  
           1                  5                  10                  15

Leu

<210> 91  
 <211> 26  
 <212> PRT  
 <213> Homo sapiens

<400> 91  
 Asp Ala Ala Ser Lys Val Met Val Glu Leu Leu Gly Ser Tyr Thr Glu  
           1                  5                  10                  15

Asp Asn Ala Ser Gln Ala Arg Val Asp Ala  
           20                  25

<210> 92  
 <211> 10  
 <212> PRT  
 <213> Homo sapiens

<400> 92  
 Val Glu Ala Phe Val Ile Asp Ala Val Arg  
           1                  5                  10

<210> 93

<400> 93  
Lys Met Arg Leu Leu Thr Phe Met Gly Met Ala Val Glu Asn Lys Glu  
1 5 10 15

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<210> 94
<211> 196
<212> PRT
<213> Homo sapiens
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<400> 94  
Met Glu Ala Val Pro Glu Gly Asp Trp Phe Cys Thr Val Cys Leu Ala  
1 5 10 15  
Gln Gln Val Glu Gly Glu Phe Thr Gln Lys Pro Gly Phe Pro Lys Arg  
20 25 30  
Gly Gln Lys Arg Lys Ser Gly Tyr Ser Leu Asn Phe Ser Glu Gly Asp  
35 40 45  
Gly Arg Arg Arg Arg Val Leu Leu Arg Gly Arg Glu Ser Pro Ala Ala  
50 55 60  
Gly Pro Arg Tyr Ser Glu Glu Gly Leu Ser Pro Ser Lys Arg Arg Arg  
65 70 75 80  
Leu Ser Met Arg Asn His His Ser Asp Leu Thr Phe Cys Glu Ile Ile  
85 90 95  
Leu Met Glu Met Glu Ser His Asp Ala Ala Trp Pro Phe Leu Glu Pro  
100 105 110  
Val Asn Pro Arg Leu Val Ser Gly Tyr Arg Arg Ile Ile Lys Asn Pro  
115 120 125  
Met Asp Phe Ser Thr Met Arg Glu Arg Leu Leu Arg Gly Gly Tyr Thr  
130 135 140  
Ser Ser Glu Glu Phe Ala Ala Asp Ala Leu Leu Val Phe Asp Asn Cys  
145 150 155 160  
Gln Thr Phe Asn Glu Asp Asp Ser Glu Val Gly Lys Ala Gly His Ile  
165 170 175  
Met Arg Arg Phe Phe Glu Ser Arg Trp Glu Glu Phe Tyr Gln Gly Lys  
180 185 190  
Gln Ala Asn Leu  
195

<210> 95  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 95  
 Met Glu Ala Val Pro Glu Gly Asp Trp Phe Cys Thr Val Cys Leu Ala  
           1                  5                  10                  15

Gln Gln Val Glu  
                   20

<210> 96  
 <211> 21  
 <212> PRT  
 <213> Homo sapiens

<400> 96  
 Gly Glu Phe Thr Gln Lys Pro Gly Phe Pro Lys Arg Gly Gln Lys Arg  
           1                  5                  10                  15

Lys Ser Gly Tyr Ser  
                   20

<210> 97  
 <211> 21  
 <212> PRT  
 <213> Homo sapiens

<400> 97  
 Leu Asn Phe Ser Glu Gly Asp Gly Arg Arg Arg Arg Val Leu Leu Arg  
           1                  5                  10                  15

Gly Arg Glu Ser Pro  
                   20

<210> 98  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 98  
 Ala Ala Gly Pro Arg Tyr Ser Glu Glu Gly Leu Ser Pro Ser Lys Arg  
           1                  5                  10                  15

Arg Arg Leu Ser  
                   20

<210> 99  
 <211> 21  
 <212> PRT  
 <213> Homo sapiens

<400> 99

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Glu

<210> 104  
 <211> 14  
 <212> PRT  
 <213> Homo sapiens

<400> 104  
 Ser Arg Trp Glu Glu Phe Tyr Gln Gly Lys Gln Ala Asn Leu  
 1 5 10

<210> 105  
 <211> 35  
 <212> PRT  
 <213> Homo sapiens

<400> 105  
 Met Ser Glu Ile Tyr Leu Arg Cys Gln Asp Glu Gln Gln Tyr Ala Arg  
 1 5 10 15

Trp Met Ala Gly Cys Arg Leu Ala Ser Lys Gly Arg Thr Met Ala Asp  
 20 25 30

Ser Ser Tyr  
 35

<210> 106  
 <211> 45  
 <212> PRT  
 <213> Homo sapiens

<400> 106  
 Leu Val Ala Pro Arg Phe Gln Arg Lys Phe Lys Ala Lys Gln Leu Thr  
 1 5 10 15

Pro Arg Ile Leu Glu Ala His Gln Asn Val Ala Gln Leu Ser Leu Ala  
 20 25 30

Glu Ala Gln Leu Arg Phe Ile Gln Ala Trp Gln Ser Leu  
 35 40 45

<210> 107  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

<400> 107  
 Val Gly Asp Val Val Lys Thr Trp Arg Phe Ser Asn Met Arg Gln Trp  
 1 5 10 15

Asn Val Asn Trp Asp Ile Arg  
 20

<210> 108  
 <211> 26

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<212> PRT

<213> Homo sapiens

<400> 108

Glu Glu Ile Asp Cys Thr Glu Glu Glu Met Met Val Phe Ala Ala Leu  
1 5 10 15

Gln Tyr His Ile Asn Lys Leu Ser Gln Ser  
20 25

<210> 109

<211> 26

<212> PRT

<213> Homo sapiens

<400> 109

Glu Glu Ile Asp Cys Thr Glu Glu Glu Met Met Val Phe Ala Ala Leu  
1 5 10 15

Gln Tyr His Ile Asn Lys Leu Ser Gln Ser  
20 25

<210> 110

<211> 26

<212> PRT

<213> Homo sapiens

<400> 110

Lys Glu Leu Ser Phe Ala Arg Ile Lys Ala Val Glu Cys Val Glu Ser  
1 5 10 15

Thr Gly Arg His Ile Tyr Phe Thr Leu Val  
20 25

<210> 111

<211> 17

<212> PRT

<213> Homo sapiens

<400> 111

Gly Trp Asn Ala Gln Ile Thr Leu Gly Leu Val Lys Phe Lys Asn Gln  
1 5 10 15

Gln

<210> 112

<211> 217

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (82)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (83)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (194)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 112

Met Val Thr Thr Ile Val Leu Gly Arg Arg Phe Ile Gly Ser Ile Val  
1 5 10 15

Lys Glu Ala Ser Gln Arg Gly Lys Val Ser Leu Phe Arg Ser Ile Leu  
20 25 30

Leu Phe Leu Thr Arg Phe Thr Val Leu Thr Ala Thr Gly Trp Ser Leu  
35 40 45

Cys Arg Ser Leu Ile His Leu Phe Arg Thr Tyr Ser Phe Leu Asn Leu  
50 55 60

Leu Phe Leu Cys Tyr Pro Phe Gly Met Tyr Ile Pro Phe Leu Gln Leu  
65 70 75 80

Asn Xaa Xaa Leu Arg Lys Thr Ser Leu Phe Asn His Met Ala Ser Met  
85 90 95

Gly Pro Arg Glu Ala Val Ser Gly Leu Ala Lys Ser Arg Asp Tyr Leu  
100 105 110

Leu Thr Leu Arg Glu Thr Trp Lys Gln His Xaa Arg Gln Leu Tyr Gly  
115 120 125

Pro Asp Ala Met Pro Thr His Ala Cys Cys Leu Ser Pro Ser Leu Ile  
130 135 140

Arg Ser Glu Val Glu Phe Leu Lys Met Asp Phe Asn Trp Arg Met Lys  
145 150 155 160

Glu Val Leu Val Ser Ser Met Leu Ser Ala Tyr Tyr Val Ala Phe Val  
165 170 175

Pro Val Trp Phe Val Lys Asn Thr His Tyr Tyr Asp Lys Arg Trp Ser  
180 185 190

Cys Xaa Thr Leu Pro Ala Gly Val His Gln His Leu Arg Asp Pro His  
195 200 205

Ala Ala Pro Ala Ala Cys Gln Leu Leu



210

215

<210> 113  
 <211> 26  
 <212> PRT  
 <213> Homo sapiens

<400> 113  
 Met Val Thr Thr Ile Val Leu Gly Arg Arg Phe Ile Gly Ser Ile Val  
           1                  5                  10                  15

Lys Glu Ala Ser Gln Arg Gly Lys Val Ser  
                   20                  25

<210> 114  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

<400> 114  
 Leu Phe Arg Ser Ile Leu Leu Phe Leu Thr Arg Phe Thr Val Leu Thr  
           1                  5                  10                  15

Ala Thr Gly Trp Ser Leu Cys  
                   20

<210> 115  
 <211> 30  
 <212> PRT  
 <213> Homo sapiens

<400> 115  
 Arg Ser Leu Ile His Leu Phe Arg Thr Tyr Ser Phe Leu Asn Leu Leu  
           1                  5                  10                  15

Phe Leu Cys Tyr Pro Phe Gly Met Tyr Ile Pro Phe Leu Gln  
                   20                  25                  30

<210> 116  
 <211> 30  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (3)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (4)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 116

Leu Asn Xaa Xaa Leu Arg Lys Thr Ser Leu Phe Asn His Met Ala Ser  
 1 5 10 15  
 Met Gly Pro Arg Glu Ala Val Ser Gly Leu Ala Lys Ser Arg  
 20 25 30

<210> 117  
 <211> 30  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (14)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 117  
 Asp Tyr Leu Leu Thr Leu Arg Glu Thr Trp Lys Gln His Xaa Arg Gln  
 1 5 10 15  
 Leu Tyr Gly Pro Asp Ala Met Pro Thr His Ala Cys Cys Leu  
 20 25 30

<210> 118  
 <211> 31  
 <212> PRT  
 <213> Homo sapiens

<400> 118  
 Ser Pro Ser Leu Ile Arg Ser Glu Val Glu Phe Leu Lys Met Asp Phe  
 1 5 10 15  
 Asn Trp Arg Met Lys Glu Val Leu Val Ser Ser Met Leu Ser Ala  
 20 25 30

<210> 119  
 <211> 27  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (24)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 119  
 Tyr Tyr Val Ala Phe Val Pro Val Trp Phe Val Lys Asn Thr His Tyr  
 1 5 10 15  
 Tyr Asp Lys Arg Trp Ser Cys Xaa Thr Leu Pro  
 20 25

<210> 120  
 <211> 20

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<210> 124
<211> 17
<212> PRT
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<213> Homo sapiens

<400> 124  
Phe Ile Lys Tyr Val Leu Ser Asp Lys Glu Lys Lys Val Phe Gly Ile  
1 5 10 15

Val

<210> 125  
<211> 13  
<212> PRT  
<213> Homo sapiens

<400> 125  
Ile Pro Met Gln Val Leu Ala Asn Val Ala Tyr Ile Ile  
1 5 10

<210> 126  
<211> 13  
<212> PRT  
<213> Homo sapiens

<400> 126  
Ile Pro Met Gln Val Leu Ala Asn Val Ala Tyr Ile Ile  
1 5 10

<210> 127  
<211> 15  
<212> PRT  
<213> Homo sapiens

<400> 127  
Asp Gly Lys Val Ala Val Asn Leu Ala Lys Leu Lys Leu Phe Arg  
1 5 10 15

<210> 128  
<211> 13  
<212> PRT  
<213> Homo sapiens

<400> 128  
Ile Arg Glu Lys Asn Pro Asp Gly Phe Leu Ser Ala Ala  
1 5 10

<210> 129  
<211> 9  
<212> PRT  
<213> Homo sapiens

<400> 129  
Met Met Phe Gly Gly Tyr Glu Thr Ile  
1 5

<210> 130  
 <211> 24  
 <212> PRT  
 <213> Homo sapiens

<400> 130  
 Tyr Arg Asp Glu Ser Ser Ser Glu Leu Ser Val Asp Ser Glu Val Glu  
           1                  5                  10                  15  
 Phe Gln Leu Tyr Ser Gln Ile His  
                   20

<210> 131  
 <211> 136  
 <212> PRT  
 <213> Homo sapiens

<400> 131  
 Tyr Ala Gln Asp Leu Asp Asp Val Ile Arg Glu Glu Glu His Glu Glu  
           1                  5                  10                  15  
 Lys Asn Ser Gly Asn Ser Glu Ser Ser Ser Ser Lys Pro Asn Gln Lys  
                   20                  25                  30  
 Lys Leu Ile Val Leu Ser Asp Ser Glu Val Ile Gln Leu Ser Asp Gly  
           35                  40                  45  
 Ser Glu Val Ile Thr Leu Ser Asp Glu Asp Ser Ile Tyr Arg Cys Lys  
           50                  55                  60  
 Gly Lys Asn Val Arg Val Gln Ala Gln Glu Asn Ala His Gly Leu Ser  
           65                  70                  75                  80  
 Ser Ser Leu Gln Ser Asn Glu Leu Val Asp Lys Lys Cys Lys Ser Asp  
                   85                  90                  95  
 Ile Glu Lys Pro Lys Ser Glu Glu Arg Ser Gly Val Ile Arg Glu Val  
           100                  105                  110  
 Met Ile Ile Glu Val Ser Ser Ser Glu Glu Glu Glu Ser Thr Ile Ser  
           115                  120                  125  
 Glu Gly Asp Asn Val Glu Ser Trp  
           130                  135

<210> 132  
 <211> 37  
 <212> PRT  
 <213> Homo sapiens

<400> 132  
 Met Leu Leu Gly Cys Glu Val Asp Asp Lys Asp Asp Asp Ile Leu Leu  
           1                  5                  10                  15

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Asn Leu Val Gly Cys Glu Asn Ser Val Thr Glu Gly Glu Asp Gly Ile  
                   20                  25                  30

Asn Trp Ser Ile Ser  
                   35

<210> 133  
 <211> 18  
 <212> PRT  
 <213> Homo sapiens

<400> 133  
 Asp Lys Asp Ile Glu Ala Gln Ile Ala Asn Asn Arg Thr Pro Gly Arg  
   1                  5                  10                  15

Trp Thr

<210> 134  
 <211> 31  
 <212> PRT  
 <213> Homo sapiens

<400> 134  
 Gln Arg Tyr Tyr Ser Ala Asn Lys Asn Ile Ile Cys Arg Asn Cys Asp  
   1                  5                  10                  15

Lys Arg Gly His Leu Ser Lys Asn Cys Pro Leu Pro Arg Lys Val  
                   20                  25                  30

<210> 135  
 <211> 179  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (120)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (139)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 135  
 Arg Arg Cys Phe Leu Cys Ser Arg Arg Gly His Leu Leu Tyr Ser Cys  
   1                  5                  10                  15

Pro Ala Pro Leu Cys Glu Tyr Cys Pro Val Pro Lys Met Leu Asp His  
                   20                  25                  30

Ser Cys Leu Phe Arg His Ser Trp Asp Lys Gln Cys Asp Arg Cys His  
                   35                  40                  45

Val Leu Ser Trp Lys Arg Val Gln Gly Ala Ser Gly Lys Leu Gln Ala  
115 120 125





<400> 137  
Met Ser Phe Pro Pro His Leu Asn Arg Pro Pro Met Gly Ile Pro Ala  
1 5 10 15

Val Pro Pro Gly Thr Pro Met Ile Pro Val Pro  
35 40

<400> 138  
Met Ser Ile Met Ala Pro Ala Pro Thr Val Leu Val Pro Thr Val Ser  
1 5 10 15  
al Leu Lys

Ala Lys Glu  
35

<400> 139  
Asn Asp Glu Asn Cys Gly Pro Thr Thr Thr Val Phe Val Gly Asn Ile  
1 5 10 15  
Asn Asp Glu Asn Cys Gly Pro Thr Thr Thr Val Phe Val Gly Asn Ile

Gly Leu Val Leu Ser Trp Lys Arg Val  
35 40

<400> 140  
Gln Gly Ala Ser Gly Lys Leu Gln Ala Phe Gly Phe Cys Glu Tyr Lys  
1 5 10 15

1 5  
Glu Pro Glu Ser Thr Leu Arg Ala Leu Arg Leu Leu His Asp Leu Gln

20

25

30

Ile Gly Glu Lys Lys Leu Leu Val  
35 40

<210> 141  
<211> 39  
<212> PRT  
<213> Homo sapiens

<400> 141  
Lys Val Asp Ala Lys Thr Lys Ala Gln Leu Asp Glu Trp Lys Ala Lys  
1 5 10 15

Lys Lys Ala Ser Asn Gly Asn Ala Arg Pro Glu Thr Val Thr Asn Asp  
20 25 30

Asp Glu Glu Ala Leu Asp Glu  
35

<210> 142  
<211> 40  
<212> PRT  
<213> Homo sapiens

<400> 142  
Glu Thr Lys Arg Arg Asp Gln Met Ile Lys Gly Ala Ile Glu Val Leu  
1 5 10 15

Ile Arg Glu Tyr Ser Ser Glu Leu Asn Ala Pro Ser Gln Glu Ser Asp  
20 25 30

Ser His Pro Arg Lys Lys Lys Lys  
35 40

<210> 143  
<211> 44  
<212> PRT  
<213> Homo sapiens

<400> 143  
Glu Lys Lys Glu Asp Ile Phe Arg Arg Phe Pro Val Ala Pro Leu Ile  
1 5 10 15

Pro Tyr Pro Leu Ile Thr Lys Glu Asp Ile Asn Ala Ile Glu Met Glu  
20 25 30

Glu Asp Lys Arg Asp Leu Ile Ser Arg Glu Ile Ser  
35 40

<210> 144  
<211> 41  
<212> PRT  
<213> Homo sapiens

<400> 144  
 Lys Phe Arg Asp Thr His Lys Lys Leu Glu Glu Glu Lys Gly Lys Lys  
 1 5 10 15

Glu Lys Glu Arg Gln Glu Ile Glu Lys Glu Arg Arg Glu Arg Glu Arg  
 20 25 30

Glu Arg Glu Arg Glu Arg Glu Arg Arg  
 35 40

<210> 145  
 <211> 93  
 <212> PRT  
 <213> Homo sapiens

<400> 145  
 Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu Lys Glu Lys  
 1 5 10 15

Glu Arg Glu Arg Glu Arg Glu Arg Asp Arg Asp Arg Asp Arg Thr Lys  
 20 25 30

Glu Arg Asp Arg Asp Arg Asp Arg Glu Arg Asp Arg Asp Arg Asp Arg  
 35 40 45

Glu Arg Ser Ser Asp Arg Asn Lys Asp Arg Ile Arg Ser Arg Glu Lys  
 50 55 60

Ser Arg Asp Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg  
 65 70 75 80

Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu  
 85 90

<210> 146  
 <211> 52  
 <212> PRT  
 <213> Homo sapiens

<400> 146  
 Arg Asp Arg Asp Arg Asp Arg Glu Arg Ser Ser Asp Arg Asn Lys Asp  
 1 5 10 15

Arg Ile Arg Ser Arg Glu Lys Ser Arg Asp Arg Glu Arg Glu Arg Glu  
 20 25 30

Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu  
 35 40 45

Arg Glu Arg Glu  
 50

<210> 147  
 <211> 22

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Thr Leu Ser Phe Pro Pro Ala Cys Gly Leu Leu Val Pro Ser Pro Ser

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<210> 152
<211> 22
<212> PRT
<213> Homo sapiens
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$\langle 210 \rangle$	153
$\langle 211 \rangle$	89

65  
Gln Glu Arg Glu Asp Gly Ser Gln Gly Lys Ile Gly Ser Ser Ala  
85 90 95

<400> 156  
Ala Leu Val Lys Gly Thr Gly Arg Glu Lys Arg Arg Xaa Gln Gly Pro

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<210> 159
<211> 31
<212> PRT
<213> Homo sapiens
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<210> 160
<211> 25
<212> PRT
<213> Homo sapiens
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<210> 161
<211> 29
<212> PRT
<213> Homo sapiens
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<400> 161
Pro  Leu  Leu  Gly  Val  His  His  Thr  Ser  Arg  Glu  Gly  Xaa  Val  Ser  Trp
   1                                10                                15
Ala  Glu  Val  Ala  Ala  Lys  Pro  Gly  Lys  Asn  Ser  Arg  Ala
                20                                25

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<400> 162  
Met Ser Val Leu Lys Gly Glu Arg Gln Gln Thr Leu Ala Leu Ala Val  
1 5 10 15

Trp Gln Asp Thr Ser Cys Arg Asp Thr Ser Cys Ala Ala Leu Arg Gly  
35 40 45

Pro Ala Glu Leu Lys Gly Arg Gly Ser

<400> 166  
Pro His Gln Val Glu Gly Arg Leu Gly Thr Met Glu Thr Trp Asp Ser

1                      5                      10

Ser His Glu Gly Leu Leu His Cys Arg Ile Pro Leu Lys Gly Ser Trp  
                        20                      25                      30

Val Gln Glu Pro Ser Cys Gln Tyr Gln Trp Arg Arg Thr Arg Cys Met  
                        35                      40                      45

Gly Ile Pro Pro Ala Thr Ser Gly Trp Pro Cys Arg Ala Pro Ala Phe  
                        50                      55                      60

Leu Cys Ala Arg Ala Glu Phe Pro Ala Ser Pro Gly Gly Ser Thr Asn  
                        65                      70                      75                      80

Phe

```
<210> 167
<211> 81
<212> PRT
<213> Homo sapiens
```

<400> 167  
Leu Val Thr Pro Pro Ser Gly Gly Glu Thr Gly Asp His Gly Asn Met  
1 5 10 15  
Gly Gln Leu Pro Arg Arg Ala Leu Ala Leu Gln Asn Ser Thr Gln Gly  
20 25 30  
Ile Leu Gly Pro Gly Ala Glu Leu Pro Val Ser Val Glu Lys Asp Lys  
35 40 45  
Val His Gly Asp Pro Ala Ser Asn Ile Arg Met Ala Met Pro Gly Thr  
50 55 60  
Arg Phe Pro Leu Cys Ser Cys Arg Ile Pro Cys Gln Pro Gly Gly Ile  
65 70 75 80  
His

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<210> 168
<211> 32
<212> PRT
<213> Homo sapiens
```

<400> 168  
Glu Gly Leu Leu His Cys Arg Ile Pro Leu Lys Gly Ser Trp Val Gln  
1 5 10 15  
Glu Pro Ser Cys Gln Tyr Gln Trp Arg Arg Thr Arg Cys Met Gly Ile  
20 25 30

<400> 169  
Gln Asn Ser Thr Gln Gly Ile Leu Gly Pro Gly Ala Glu Leu Pro Val  
1 5 10 15  
Ser Val Glu Lys Asp Lys Val His Gly Asp Pro Ala Ser  
20 25

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<400> 170
Phe Gly Thr Arg Lys Lys Tyr His Leu Cys Met Ile Pro Asn Leu Asp
  1                               10                      15
Leu Asn Leu Asp Arg Asp Leu Val Leu Pro Asp Val Ser Tyr Gln Val
  20                               25                      30
Glu Ser Ser Glu Glu Asp Gln Ser Gln Thr
  35                               40

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<220>  
<221> SITE  
<222> (88)  
<223> Xaa equals any of the naturally occurring L-amino acids
```

<400> 171  
Phe Leu Leu Ser Leu Gly Ser Leu Val Met Leu Leu Gln Asp Leu Val  
1 5 10 15  
His Ser Glu Leu Asp Gly Thr Leu His Tyr Thr Val Ala Leu His Lys  
20 25 30  
Asp Gly Ile Glu Met Ser Cys Glu Gln Ser Ile Asp Ser Pro Asp Phe  
35 40 45  
His Leu Leu Asp Trp Lys Cys Thr Val Glu Ile His Lys Glu Lys Lys  
50 55 60  
Gln Gln Ser Leu Ser Leu Arg Ile His Ser Leu Arg Leu Ile Leu Leu  
65 70 75 80  
Thr Gly Phe His Leu Ile Thr Xaa Ile Trp Lys His Gln Ile Ser Ile  
85 90 95

Leu Lys Cys Val Gly Gly Thr Ala Gly Cys Asp Ser Tyr Thr Pro Lys

65 70 75 80

Val Ile Gln Cys Gln Asn Lys Gly Trp Asp Gly Tyr Asp Val Gln Trp  
85 90 95

Glu Cys Lys Thr Asp Leu Asp Ile Ala Tyr Lys Phe Gly Lys Thr Val  
100 105 110

Val Ser Cys Glu Gly Tyr Glu Ser Ser Glu Asp Gln Tyr Val Leu Arg  
115 120 125

Gly Ser Cys Gly Leu Glu Tyr Asn Leu Asp Tyr Thr Glu Leu Gly Leu  
130 135 140

Gln Lys Leu Lys Glu Ser Gly Lys Gln His Gly Phe Ala Ser Phe Ser  
145 150 155 160

Asp Tyr Tyr Tyr Lys Trp Ser Ser Ala Asp Ser Cys Asn Met Ser Gly  
165 170 175

Leu Ile Thr Ile Val Val Leu Leu Gly Ile Ala Phe Val Val Tyr Lys  
180 185 190

Leu Phe Leu Ser Asp Gly Gln Tyr Ser Pro Pro Pro Tyr Ser Glu Tyr  
195 200 205

Pro Pro Phe Ser His Arg Tyr Gln Arg Phe Thr Asn Ser Ala Gly Pro  
210 215 220

Pro Pro Pro Gly Phe Lys Ser Glu Phe Thr Gly Pro Gln Asn Thr Gly  
225 230 235 240

His Gly Ala Thr Ser Gly Phe Gly Ser Ala Phe Thr Gly Gln Gln Gly  
245 250 255

Tyr Glu Asn Ser Gly Pro Gly Phe Trp Thr Gly Leu Gly Thr Gly Gly  
260 265 270

Ile Leu Gly Tyr Leu Phe Gly Ser Asn Arg Ala Ala Thr Pro Phe Ser  
275 280 285

Asp Ser Trp Tyr Tyr Pro Ser Tyr Pro Pro Ser Tyr Pro Gly Thr Trp  
290 295 300

Asn Arg Ala Tyr Ser Pro Leu His Gly Gly Ser Gly Ser Tyr Ser Val  
305 310 315 320

Cys Ser Asn Ser Asp Thr Lys Thr Arg Thr Ala Ser Gly Tyr Gly Gly  
325 330 335

Thr Arg Arg Arg  
340

&lt;210&gt; 175

&lt;211&gt; 24

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

Gly Trp Asn Asp Pro Asp Arg Met  
20

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<210> 176
<211> 26
<212> PRT
<213> Homo sapiens
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<400> 176
Thr Ala Gly Cys Asp Ser Tyr Thr Pro Lys Val Ile Gln Cys Gln Asn
      1                               5          10          15
Lys Gly Trp Asp Gly Tyr Asp Val Gln Trp
      20          25

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```
<210> 177
<211> 32
<212> PRT
<213> Homo sapiens
```

<400> 177  
Glu Tyr Asn Leu Asp Tyr Thr Glu Leu Gly Leu Gln Lys Leu Lys Glu  
1 5 10 15  
Ser Gly Lys Gln His Gly Phe Ala Ser Phe Ser Asp Tyr Tyr Tyr Lys  
20 25 30

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<210> 178
<211> 28
<212> PRT
<213> Homo sapiens
```

<400> 178  
Tyr Lys Leu Phe Leu Ser Asp Gly Gln Tyr Ser Pro Pro Pro Tyr Ser  
1 5 10 15  
Glu Tyr Pro Pro Phe Ser His Arg Tyr Gln Arg Phe  
20 25

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<210> 179
<211> 26
<212> PRT
<213> Homo sapiens
```

<400> 179  
Glu Asn Ser Gly Pro Gly Phe Trp Thr Gly Leu Gly Thr Gly Gly Ile

Leu Gly Tyr Leu Phe Gly Ser Asn Arg Ala  
20 25

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<210> 180
<211> 25
<212> PRT
<213> Homo sapiens .
```

<400> 180  
Asn Arg Ala Tyr Ser Pro Leu His Gly Gly Ser Gly Ser Tyr Ser Val  
1 5 10 15

Cys Ser Asn Ser Asp Thr Lys Thr Arg  
20 25

```
<210> 181
<211> 124
<212> PRT
<213> Homo sapiens
```

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<220>
<221> SITE
<222> (30)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>  
<221> SITE  
<222> (31)  
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>
<221> SITE
<222> (32)
<223> Xaa equals any of the naturally occurring L-amino acids
```

<400> 181  
Thr Glu Ser Gln Met Lys Cys Phe Leu Gly Asn Ser His Asp Thr Ala  
          1               5                        10                    15

Pro Arg His Thr Cys Ser Gly Gln Gly Leu His Gly Gly Xaa Xaa Xaa  
20 25 30

Thr Ala Pro Leu Arg Ala Leu Gln Gln His Ser Gln Asp Gly Lys Leu  
35 40 45

55  
 Cys Thr Asn Ser Leu Pro Ala Ala Arg Gly Gly Pro His Lys His Val  
 50 55 60

Val Val Thr Val Val Tyr Ser Val Lys His Trp Lys Pro Thr Glu Arg  
65 70 75 80

65  
Ser Ser Val Ser Ile Lys Lys Glu Glu Glu Thr Asp Trp Asp Met Asp  
85 90 95

Year	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	



Gln Leu Ser Lys Gln Arg Thr Thr Tyr Glu Met Lys Ser Gly Ser Ser  
 100 105 110

Gly Val Gln Thr Glu Glu Leu Arg His Pro Ser Leu  
 115 120

<210> 182  
 <211> 77  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (16)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (23)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (25)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (26)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>  
 <221> SITE  
 <222> (27)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 182  
 Asn Ala Ser Trp Glu Ile His Met Thr Gln Arg His Val Ile Pro Xaa  
 1 5 10 15

Leu Ala Arg Ala Ser Met Xaa Val Xaa Xaa Xaa Gln Arg Pro Ser Glu  
 20 25 30

Leu Cys Ser Ser Ile Arg Arg Met Ala Asn Ser Ala Gln Ile Val Phe  
 35 40 45

Pro Leu Pro Val Gly Ala Pro Thr Asn Thr Leu Ser Ser Leu Leu Tyr  
 50 55 60

Thr Val Leu Asn Thr Gly Asn Gln Gln Lys Glu Ala Val  
 65 70 75

<210> 183  
 <211> 30  
 <212> PRT  
 <213> Homo sapiens

100551-0550

Thr Asn Ser Leu Pro Ala Ala Arg Gly Gly Pro His Lys His  
20 25 30

<400> 184  
Arg Ser Ser Val Ser Ile Lys Lys Glu Glu Glu Thr Asp Trp Asp Met  
1 5 10 15

```
<210> 185
<211> 29
<212> PRT
<213> Homo sapiens
```

Pro Leu Pro Val Gly Ala Pro Thr Asn Thr Leu Ser Ser  
20 25

<400> 186  
Leu Ser Ile Ile Phe Leu Ala Phe Val Ser Ile Asp Arg Cys Leu Gln  
1 5 10 15

```
<210> 187
<211> 67
<212> PRT
<213> Homo sapiens
```

<400> 187  
Gly Ser Cys Phe Ala Thr Trp Ala Phe Ile Gln Lys Asn Thr Asn His  
1 5 10 15

Arg Cys Val Ser Ile Tyr Leu Ile Asn Leu Leu Thr Ala Asp Phe Leu

Tyr Ile Asn  
65

<400> 188  
Lys Asn Thr Asn His Arg Cys Val Ser Ile Tyr Leu Ile Asn Leu Leu  
1 5 10 15

```
<210> 189
<211> 17
<212> PRT
<213> Homo sapiens
```

<400> 189  
Lys His Thr Val Glu Thr Arg Ser Val Ala Phe Arg Lys Gln Leu Asn  
1 5 10 15

Arg

```
<210> 190
<211> 30
<212> PRT
<213> Homo sapiens
```

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<220>
<221> SITE
<222> (18)
<223> Xaa equals any of the naturally occurring L-amino acids

```

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<220>
<221> SITE
<222> (29)
<223> Xaa equals any of the naturally occurring L-amino acids
```

<400> 190  
Pro Gln Val Leu His Leu Arg Trp Leu Pro Lys Val Leu Gly Tyr Arg  
1 5 10 15

Ser Xaa Pro Leu Arg Leu Ala Asp Pro Ser Thr Phe Xaa Met

20

<400> 191  
Gln Leu Leu Gly Phe Glu Gly Asn Asp Ser Ala Gly Glu Arg Arg Trp  
1 5 10 15

1  
Arg Gly Ala Asn Met Gln Ile Pro Leu Leu Gln Val Ala Leu Pro Leu  
20 25 30

Ser Thr Glu Glu Gly Thr Gly Pro Ser Gly Pro Thr Gln Pro Ser Pro  
35 40 45

Gln Gly Glu Val Arg Phe Leu Arg Ser Pro Arg Met Gly Gly Gln Val  
50 55 60

Pro His Trp Glu Trp Arg Ser His Ser Leu Pro Trp Val Leu Thr Ser  
65 70 75 80

65  
Thr Leu Ser Gly Cys Glu Gly Asp Leu Pro Gly Phe Pro His Gln Val  
85 90 95

Gln Leu Pro Ala Ala Glu Ser His Thr Leu Asn Thr Gly Leu Leu Arg  
100 105 110

Ser Asp Thr Gly Gln Phe Thr Pro Cys Leu Lys Leu Ala Phe Glu Arg  
115 120 125

Pro Ser Gly  
130

```
<210> 192
<211> 24
<212> PRT
<213> Homo sapiens
```

<400> 192  
Asn Asp Ser Ala Gly Glu Arg Arg Trp Arg Gly Ala Asn Met Gln Ile  
1 5 10 15

Pro Leu Leu Gln Val Ala Leu Pro  
20

```
<210> 193
<211> 29
<212> PRT
<213> Homo sapiens
```

<400> 193  
Pro Ser Pro Gln Gly Glu Val Arg Phe Leu Arg Ser Pro Arg Met Gly  
1 5 10 15

<400> 196

Met Gln Asn Lys Pro Arg Ala Pro Gln Lys Arg Ala Leu Pro Phe Pro  
 1 5 10 15  
 Glu Leu Glu Leu Arg Asp Tyr Ala Ser Val Leu Thr Arg Tyr Ser Leu  
 20 25 30  
 Gly Leu Arg Asn Lys Glu Pro Ser Leu Gly His Arg Trp Gly Thr Gln  
 35 40 45  
 Lys Leu Gly Arg Ser Pro Cys Ser Glu Gly Ser Gln Gly His Thr Thr  
 50 55 60  
 Asp Ala Ala Asp Val Gln Asn His Ser Lys Glu Glu Gln Arg Asp Ala  
 65 70 75 80  
 Gly Ala Gln Arg Xaa Cys Gly Gln Gly Arg His Thr Trp Ala Tyr Arg  
 85 90 95  
 Xaa Gly Ala Gln Asp Thr Ser Arg Leu Thr Gly Asp Pro Arg Gly Gly  
 100 105 110  
 Glu Arg Ser Pro Pro Lys Cys Gln Ser Met Lys Gln Gln Glu Gly Ala  
 115 120 125  
 Pro Ser Gly His Cys Trp Asp Gln Trp Cys His Gly Ala Ser Glu Val  
 130 135 140  
 Val Trp Pro Glu Ser Arg Lys Arg Ala Gln Ile Phe Xaa Ser Pro Cys  
 145 150 155 160  
 Arg Gln Ser Pro Arg Ser Ser Ala Leu Gly Ala Gly Gln Lys Leu Ala  
 165 170 175  
 Val Cys Ser Pro Asp Ile Leu Cys Cys Pro Thr Asp Thr Leu Leu Ala  
 180 185 190  
 Ser His Pro His Ser Leu Leu Thr Gly Thr Gln Phe Ser Gly Gln Thr  
 195 200 205  
 Gln Ala Leu Ala Pro Ser Trp Cys Ala  
 210 215

&lt;210&gt; 197

&lt;211&gt; 26

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 197

Ala Pro Gln Lys Arg Ala Leu Pro Phe Pro Glu Leu Glu Leu Arg Asp  
 1 5 10 15

Tyr Ala Ser Val Leu Thr Arg Tyr Ser Leu  
 20 25

&lt;210&gt; 198

&lt;211&gt; 27

<400> 201

Ile Ala Gln Val Leu Lys Ala Glu Met Cys Leu Val Xaa Arg Pro His  
 1 5 10 15  
 Pro Xaa Leu Leu Asp Ser His Arg Gly Trp Ala Gly Glu Thr Leu Arg  
 20 25 30  
 Gly Gln Gly Arg Gln Glu Xaa Glu Ser Asp Thr Lys Ala Gly Thr Leu  
 35 40 45  
 Gln Leu Gln Arg Gln Ala Pro Leu Pro Leu Thr Gln His Ser Leu Val  
 50 55 60  
 Leu Pro Ile Ser Pro Gly Pro Ser Asn His Thr Gln Ser  
 65 70 75

<210> 202  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (16)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 202  
 Arg Gly Trp Ala Gly Glu Thr Leu Arg Gly Gln Gly Arg Gln Glu Xaa  
 1 5 10 15

Glu Ser Asp Thr  
 20

<210> 203  
 <211> 20  
 <212> PRT  
 <213> Homo sapiens

<400> 203  
 Ala Pro Leu Pro Leu Thr Gln His Ser Leu Val Leu Pro Ile Ser Pro  
 1 5 10 15

Gly Pro Ser Asn  
 20

<210> 204  
 <211> 166  
 <212> PRT  
 <213> Homo sapiens

<400> 204  
 Asn Arg Glu Arg Gly Gly Ala Gly Ala Thr Phe Glu Cys Asn Ile Cys  
 1 5 10 15

Leu Glu Thr Ala Arg Glu Ala Val Val Ser Val Cys Gly His Leu Tyr  
 20 25 30

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100  
Gly Ala Phe Pro Phe Gly Phe Phe Thr Thr Val Phe Asn Ala His Glu  
115 120 125

<210> 209  
<211> 36

<400> 212

Ile Lys Asn Leu Ile Phe Phe Met Pro Ser Val Val Leu Lys His Ile  
 1 5 10 15

His His Ile Ser Val Ala Lys Asp Gly Glu Glu Leu Lys Leu Lys Arg  
 20 25 30

Cys Leu Leu Asn Phe Val Ala Ser Val Arg Ala Phe His His Gln Phe  
 35 40 45

Leu Glu Ser Thr His Gly Ser Pro Ser Val Asp Ile Ser Leu Asp Leu  
 50 55 60

Ala Lys Ser Thr Met Arg Thr Ala Lys Ser Cys His Ile Val Ile Thr  
 65 70 75 80

Asn Arg Ser Arg Asp Ala Ile Ser Gly Pro Val Glu Ser Pro His Cys  
 85 90 95

Asp Ala Cys Ser Thr Gln Thr Ala Phe Ile His Ile Ser Cys Asn Leu  
 100 105 110

Thr Pro Lys Ala Arg Glu Thr Lys Cys Ala Thr Glu Thr Ile Ser Lys  
 115 120 125

Gln Gly Ser Glu Gln Glu Met Ser Cys Gly Leu Gly Arg Thr Arg Gly  
 130 135 140

Ser Thr  
 145

<210> 213

<211> 23

<212> PRT

<213> Homo sapiens

<400> 213

Phe Leu Leu Gly Thr Leu Phe Thr Asn Cys Leu Cys Gly Thr Phe Cys  
 1 5 10 15

Phe Pro Cys Leu Gly Cys Gln  
 20

<210> 214

<211> 24

<212> PRT

<213> Homo sapiens

<400> 214

Ser Ile Cys Asp Asp Tyr Met Ala Thr Leu Cys Cys Pro His Cys Thr  
 1 5 10 15

Leu Cys Gln Ile Lys Arg Asp Ile  
 20

<210> 215

<400> 215  
Ser Val Val Leu Lys His Ile His His Ile Ser Val Ala Lys Asp Gly  
1 5 10 15

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<210> 216
<211> 26
<212> PRT ..
<213> Homo sapiens
```

Thr His Gly Ser Pro Ser Val Asp Ile Ser  
20 25

```
<210> 217
<211> 28
<212> PRT
<213> Homo sapiens
```

<400> 217  
Thr Ala Phe Ile His Ile Ser Cys Asn Leu Thr Pro Lys Ala Arg Glu  
1 5 10 15

Thr Lys Cys Ala Thr Glu Thr Ile Ser Lys Gln Gly  
20 25

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<210> 218
<211> 6
<212> PRT
<213> Homo sapiens
```

<400> 218  
Met Lys Gly Glu Ile Glu  
1 5

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<210> 219
<211> 14
<212> PRT
<213> Homo sapiens
```

<400> 219  
Glu Phe Gly Thr Ser Arg Gly Arg Gln His Arg Ala Leu Glu  
1 5 10

Gly Ser Cys Val Pro Glu His  
85

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130  
Val Lys Asp Arg Ala Ala Ala Xaa Pro Ser Val Thr Pro Arg Asn Arg  
145 150 155 160

[illegible]

[illegible]

Asp Thr Leu Arg Lys Leu Arg Ile Gly Thr Arg Arg Pro Arg  
20 25 30



<210> 225  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

<400> 225  
 Arg Lys Leu Met Tyr Leu Gln Glu Leu Pro Arg Arg Asp His Tyr Ile  
           1                          5                          10                          15

Phe Tyr Cys Lys Asp Gln His  
                           20

<210> 226  
 <211> 23  
 <212> PRT  
 <213> Homo sapiens

<400> 226  
 Glu Ala Leu Glu Glu Phe Lys Lys Leu Val Gln Arg Lys Gly Leu Ser  
           1                          5                          10                          15

Glu Glu Asp Ile Phe Thr Pro  
                           20

<210> 227  
 <211> 27  
 <212> PRT  
 <213> Homo sapiens

<400> 227  
 Arg Ala Thr Ser Pro Pro Gly Arg Arg Gly Gln Pro Leu Leu Gly Gly  
           1                          5                          10                          15

Gly Gln Ser Trp Gly Pro Gly Lys Arg Ala Ala  
                           20                          25

<210> 228  
 <211> 29  
 <212> PRT  
 <213> Homo sapiens

<400> 228  
 Phe Phe Trp Met His Arg Ser Ser Leu Met Lys Val Asn Val Ala Ser  
           1                          5                          10                          15

Asn Phe Pro Pro Pro Arg Ala Val Thr Phe Thr Gly Asp  
                           20                          25

<210> 229  
 <211> 28  
 <212> PRT  
 <213> Homo sapiens

<400> 229

Cys Leu Met Ser Gly Pro Pro Ala Pro Gln Glu Gly Glu Ala Ser Pro  
 1 5 10 15

Ser Leu Glu Val Gly Arg Ala Gly Ala Leu Ala Lys  
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